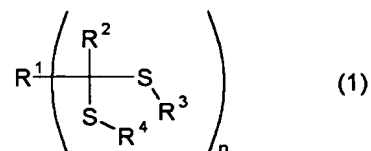


CLAIMS

1. A polymerizable composition for making a high-refractive-index resin, the composition containing a polythiol compound having a dithioacetal, dithioketal, orthotrithioformic ester, or orthotetrathiocarbonic ester skeleton, and at least two mercapto groups; and a compound having at least two iso(thio)cyanato groups, wherein the molar ratio of the mercapto group to the iso(thio)cyanato group is greater than 1.0 but not more than 3.0.

2. The polymerizable composition according to claim 1, wherein the polythiol compound has a mercaptomethylthio group.

3. The polymerizable composition according to claim 1 or 2, wherein the polythiol compound having the dithioketal or dithioacetal skeleton is represented by General Formula (1)



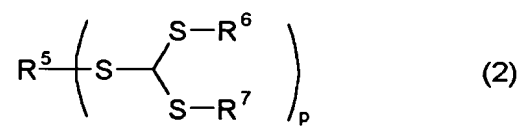
(wherein R¹ is an aliphatic residue, a heterocyclic residue, or an aromatic residue with a valence of n; R² is a hydrogen atom or an aliphatic residue, a heterocyclic residue, or an aromatic residue with a valence of 1; and R³

and R^4 are each independently an aliphatic residue, a heterocyclic residue, or an aromatic residue with a valence of 1, and R^3 and R^4 may bond to each other to form a ring or each may bond to R^3 or R^4 in another set of parentheses to form a ring when n is 2 or more; wherein at least one of R^1 , R^2 , R^3 , and R^4 must have at least one mercapto group, and $m_1 + (m_2 + m_3 + m_4) \times n \geq 2$, wherein m_1 , m_2 , m_3 , and m_4 represent the numbers of mercapto group contained in R^1 , R^2 , R^3 , and R^4 , respectively, and n is an integer of 1 or more.)

4. The polymerizable composition according to claim 3, wherein R^2 in General Formula (1) is a hydrogen atom.

5. The polymerizable composition according to claim 4, wherein the polythiol compound having the dithioacetal skeleton is at least one selected from the group consisting of 1,1,3,3-tetrakis(mercaptomethylthio)propane, 1,1,2,2-tetrakis(mercaptomethylthio)ethane, 4,6-bis(mercaptomethylthio)-1,3-dithiane, and 2-(2,2-bis(mercaptomethylthio)ethyl)-1,3-dithietane.

6. The polymerizable composition according to claim 1 or 2, wherein the polythiol compound having the orthotrithioformic ester skeleton is represented by General Formula (2)

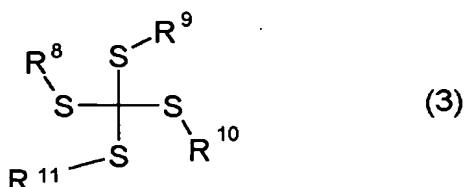


(wherein R^5 is an aliphatic residue, a heterocyclic residue, or an aromatic residue with a valence of p ; R^6 and R^7 are each independently an aliphatic residue, a heterocyclic residue, or an aromatic residue with a valence of 1, and R^6 and R^7 may bond to each other to form a ring; wherein, at least one of R^5 , R^6 and R^7 must have at least one mercapto group, $m_5 + (m_6 + m_7) \times p \geq 2$, wherein m_5 , m_6 , and m_7 represent the numbers of mercapto group contained in R^5 , R^6 , and R^7 , respectively, and p is an integer of 1 or more.)

7. The polymerizable composition according to claim 6, wherein R^6 and R^7 are each a mercaptomethyl group.

8. The polymerizable composition according to claim 7, wherein the polythiol compound represented by General Formula (2) is at least one selected from the group consisting of tris(mercaptomethylthio)methane, 1,1,5,5-tetrakis(mercaptomethylthio)-2,4-dithiapentane, and bis(4,4-bis(mercaptomethylthio)-1,3-dithiabutyl)(mercaptomethylthio)methane.

9. The polymerizable composition according to claim 1 or 2, wherein the polythiol compound having the orthotetrathiocarbonic ester skeleton is represented by General Formula (3)



(wherein R^8 , R^9 , R^{10} , and R^{11} are each independently an aliphatic residue, a heterocyclic residue, or an aromatic residue and may each bond with one of other residues to form a ring; wherein at least one of R^8 , R^9 , R^{10} , and R^{11} must contain at least one mercapto group, and $m_8 + m_9 + m_{10} + m_{11} \geq 2$, wherein m_8 , m_9 , m_{10} , and m_{11} represent the numbers of mercapto group in R^8 , R^9 , R^{10} , and R^{11} , respectively.)

10. A method for making a resin by curing the polymerizable composition according to any one of claims 1 to 9.

11. A resin prepared by curing the polymerizable composition according to any one of claims 1 to 9.

12. An optical element comprising the resin according to claim 11.

13. A lens comprising the optical element according to claim 12.

14. 4,6-bis(mercaptomethylthio)-1,3-dithiane.

15. 2-(2,2-bis(mercaptomethylthio)ethyl)-1,3-dithietane.